APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,809	01/15/2002	Ken Shoemaker	2207/12020	4746

25693　　7590　　11/25/2005		EXAMINER
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ART UNIT	PAPER NUMBER
2195	

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DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Advisory Action ***Before the Filing of an Appeal Brief***	*10/047,809*	SHOEMAKER ET AL.
	Examiner	**Art Unit**	
	Lilian Vo	2195	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>31 October 2005</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

   a) ☒ The period for reply expires <u>3 </u>months from the mailing date of the final rejection.

   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

     Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

   (a)☐ They raise new issues that would require further consideration and/or search (see NOTE below);

   (b)☐ They raise the issue of new matter (see NOTE below);

   (c)☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d)☐ They present additional claims without canceling a corresponding number of finally rejected claims.

     NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: *None*.

   Claim(s) objected to: *None*.

   Claim(s) rejected: *1 - 20*.

   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet.</u>

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____

13. ☐ Other: _____.

                                                 Lilian Vo
                                                 Examiner
                                                 Art Unit: 2195

Continuation of 11. does NOT place the application in condition for allowance because: the rejection was deemed proper and applicant's arguments are not persuasive for the reasons set forth below.

Regarding applicant's argument that Eggers fails to teach the recited first and second instruction fetch unit (page 8, 1st paragraph), the examiner disagrees. The fetch unit described in Eggers partitions the instruction bandwidth among the threads. The fetch unit accomplishes this by having eight separate program counters, one for each thread context. The part of the fetch unit that fetches an instruction from a first thread, which includes a first program counter, is the claimed first fetch unit and the part of the fetch unit that fetches an instruction from a second thread, which includes a second program counter, is defined as a second instruction fetch unit. So Eggers has in fact taught a first instruction fetch unit and a second instruction fetch unit as claimed. Therefore this argument is moot.

Regarding applicant's argument that Eggers fails to teach or suggest determining whether a multi-thread scheduler determines the width of an execution unit (page 8, 2nd paragraph) and/or the multi-threading processor is wide enough to execute a first thread and a second thread in parallel (page 9, 2nd paragraph, page 10, 1st paragraphs), the examiner disagrees. Eggers discloses that SMT processor exploits both types of thread-level and instruction-level parallelism and it is designed to meet simultaneous multi-threading because it consumes both thread-level and instruction-level parallelism (page 13, left column, last paragraph - right column, first paragraph). Eggers further discloses "the processor dynamically schedules machine resources among the instructions, providing the greatest chance for the highest hardware utilization. If one thread has a high instruction-level parallelism, that parallelism can be satisfied; if multiple threads each have low instruction-level parallelism, they can be executed together to compensate. In this way, SMT can recover issues slots lots to both horizontal and vertical waste (page 13, left column, see description of fig. 1c). The fact that Eggers' processor exploits both types of thread-level and instruction-level parallelism and schedules to execute multiple threads together, the processor width must have taken into the account to determine that the processor is wide enough in order to schedule and execute those threads together (in parallel). Therefore, the step of determining whether the processor is wide enough to execute both threads in parallel is considered inherent.

Regarding applicant's argument that "Eggers does not address the opposite problem..." (page 9, 4th paragraph), applicant is arguing a feature of the invention not specifically stated in the claim language, which is improper. Claim subject matter, not the specification, is the measure of invention. Limitations in the specification cannot be read into the claims for the purpose of avoiding the prior art. In re Self, 213 USPQ 1,5 (CCPA 1982); In re Priest, 199 USPQ 11,15 (CCPA 1978).

Regarding applicant's allegation that Eggers teach away from using an in-order processor (page 10, 7th paragraph and page 11, 1st paragraph), Eggers does not teach away from using the an in-order processor because Eggers discloses processor is able to schedule multiple threads when each have low instruction-level parallelism (page 13, 6th paragraph). By this, it is clearly that Eggers' system can be an in-order processor. Furthermore, applicant's disclosure also states the similar feature as disclosed by Eggers for support with the using of an in-order processor in page 9, lines 3 - 5.
Furthermore, claims 3, 11 and 17 rejections are based on the combination of Eggers and AAPA. With respect to applicant's arguments against the references individually (page 10, 7th paragraph and page 11, 1st paragraph), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
In response to applicant's argument that the combination of Eggers and AAPA is impropriate (page 11, 2nd paragraph), the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).